FINAL REVIEW DRAFT - 11/7/2007

City of Crown Point Bicycle Plan

A Work Plan for the Implementation of Improvements to the Bicycling Environment

Version .9, November 7, 2007

Executive Summary

The City of Crown Point Bicycle Plan identifies a proposed on-street bicycle network and defines a 10-year program to improve key components of the network that will make bicycling safer, more convenient, more popular and more fun.

The City's goal is to use the plan to develop a bicycle-friendly environment that:

1. Maximizes access to its planned regional trail connections and their impact on quality of life and the local economy, and
2. Encourages its residents to bicycle for transportation, recreation, and good health.

The plan includes: a map of the proposed bicycle network, with routes color-coded by recommended facility; and the 10 year program organized by near-term, mid-term, and long-term priority recommendations:

Near-Term Priorities: 1-3 year timeframe

- Signed bicycle network
- Improved intersections
- Shared lanes and bike lanes on appropriate streets
- Bicycle parking
- City of Crown Point Bicycle Map
- Education and encouragement programs

Mid-Term Priorities: 3-5 year timeframe

- Bicycle accommodations on reconstructed 113th Ave and Summit St.
- Bicycle lanes and shared lanes on Joliet Rd./S.R. 231.

Long-Term Priorities: 6-10 year timeframe

- Road Diet for Main St./S.R. 55
- Coordination of bicycle facilities construction with long-term street reconstruction and improvement program

Much of the near-term program can be accomplished through the City's normal funding mechanisms, including coordination with annual resurfacing and reconstruction programs. Local sponsorship will greatly accelerate the plan's implementation.

Where necessary, each of the plan's recommendations qualify for funding through federal programs, including Congestion Mitigation and Air Quality, the Surface Transportation Program, and Transportation Enhancements [administered through the Northwestern Indiana Regional Planning Council].

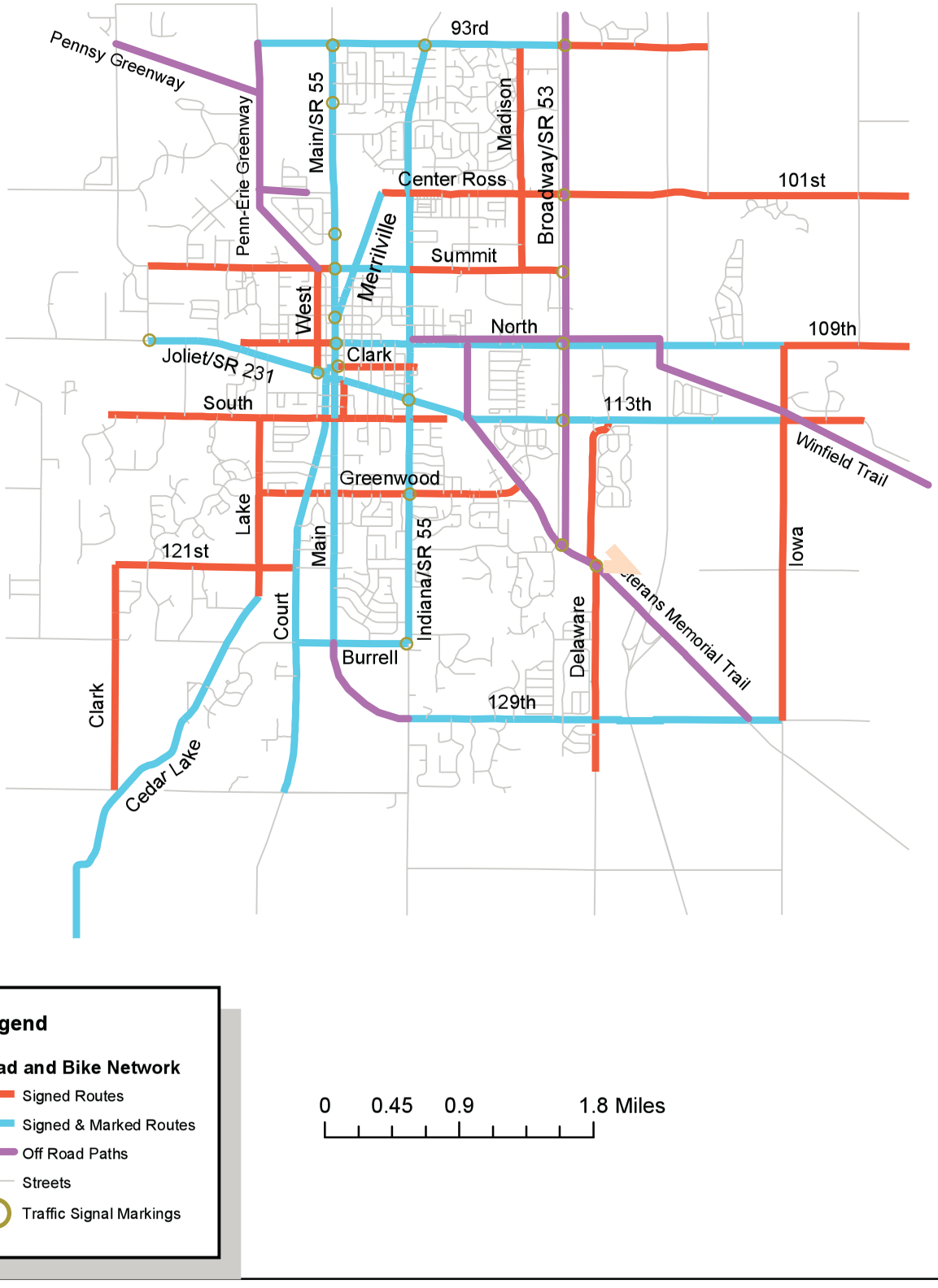
The City of Crown Point Bicycle Planning Committee

Mayor Dan Klein	
Andrew Kyres	Councilman, 3rd District
Mike Conquest	Councilman at Large
Robert Corbin	Councilman, 5th District
Carol Drasga	Councilman at Large
Dave Eeingenberg	Trek Bicycle Store Owner
Curt Graves	City Planner
Keith Hefner	Police Chief
Julie Johnson	Parks and Recreation Director
Bill Meeks	City Engineer
Steve Nigro	Assistant City Planner
Jay Olson	Director of Public Works
Patti Olson	Clerk-Treasurer

Consultants: Nick Jackson, Director of Planning, Chicagoland Bicycle Federation
Steve Buchtel, Southland Coordinator, Chicagoland Bicycle Federation

Table of Contents

City of Crown Point Proposed Bike Network



Introduction

On the preceding page is the proposed network of bicycle routes and facilities that forms the foundation of the City of Crown Point's Bicycle Plan.

The map of proposed bicycle routes speaks in the clearest terms to the goals of the City of Crown Point Bicycle Plan:

- Improve the safety of Crown Point streets for all users
- Provide a convenient network that accommodates the range of bicycle use in Crown Point – for recreation, exercise, and transportation
- Maximize access for all residents to Northwest Indiana's expanding regional trail network
- Encourage bicycling as a choice for active living and an inexpensive, non-polluting, and convenient option for local trips
- Distinguish Crown Point as a progressive community meeting the challenge of rapid growth in Northwest Indiana through the routine accommodation of non-motorized travel

To choose these routes, Crown Point residents shared their knowledge and experience gained from living in and cycling around Crown Point at two public meetings in 2007, one on May 15 and the second in October 17 at the St. Anthony Medical Center's Marion Education Center. This network embodies their vision of Crown Point as a bicycle-friendly community.

This plan also provides guidance for bike parking the establishment of encouragement and education programs and events that are essential to realizing a bicycle-friendly vision. This approach recognizes that barriers to cycling are not always a problem of insufficient facilities – motorist behavior and attitudes, bicyclist skill level, and a lack of "bike culture" all discourage or prevent residents from choosing to bike.

The City of Crown Point contracted with the Chicagoland Bicycle Federation to develop this plan, and, through the Bicycle Plan Committee, has been a partner in each step of its development. The Committee is formed of representatives from a broad selection of City departments and agencies identified as stakeholders in the plan's development and implementation [a list of committee members current as of this writing can be found in the Executive Summary, page 1].

Economic and residential development in Northwest Indiana are challenging communities to improve quality of life amidst escalating traffic congestion, struggling Main Streets, and diminishing opportunities for healthy outdoor activity. Crown Point's bicycle plan positions the city well to meet these issues head-on, and offers to the region an important precedent for routine consideration and accommodation of sustainable, healthful, and enjoyable transportation.

Near-Term Priorities [1-2 years]

Sign the Bicycle Network

Map key [signed-only routes]:

Scope of work: Install wayfinding and bike route signs for entire network; 56 miles

Target completion: First year

Use accepted standards for bicycle route signage that identifies the bicycle network and communicates at key points destination, distance, and direction.

Crown Point's bicycle network uses many low-traffic residential streets whose current characteristics require only the appropriate signage to make them suitable for most cyclists.

Crown Point's primary arterials are suitable for experienced cyclists, but beyond the comfort level of most cyclists. Yet appropriate signage still provides useful service to those experienced riders and normalizes the presence of cyclists for the thousands of motor vehicle drivers that use the routes daily. So this plan includes signing the entire bicycle network as a near-term priority.

Mark Traffic Signal Pavement Detectors

Map key for network traffic signals:

Scope of work: 22 signalized intersections

Target for completion: Second year

Place consistent markings at signalized intersections utilizing vehicle detector loops that show cyclists where to place their bike for detection by the loop.

Crown Point's bicycle network incorporates key signalized intersections at high-traffic cross-streets to help cyclists cross more safely, quickly and conveniently. Key intersections on the bicycle network include crossings at:

- Broadway St./S.R. 53
- Indiana Ave./S.R. 55
- Joliet Rd./S.R. 231
- Main St.

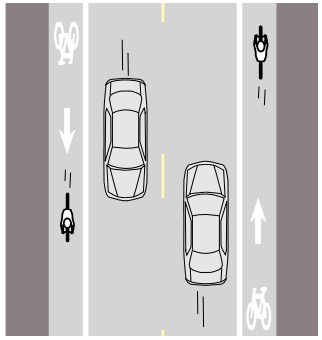
Some traffic signal loop detectors will not detect a bicyclist regardless of the position of the bicycle. These loop detectors should be adjusted within reasonable limits to detect most cyclists, and should also be a near term priority.

Shared Lanes & Bike Lanes

Map key:

Scope of work: Install on-street markings; 13 miles

Target for completion: Third year

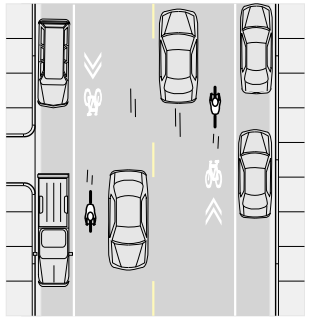


On high-traffic arterials establish 5' travel lanes exclusive for bicyclists' use where width is sufficient.

Streets and segments on the Crown Point bicycle network that currently can accommodate bicycle lanes include:

- Main St. [Greenwood to Burrell]
- Merrillville Road. [93rd Ave. to Cedar Ross]
- Court St. [Joliet Rd. to Greenwood]

Bike lanes offer the highest level of safety for drivers and cyclists on streets with heavy traffic. They reinforce proper roadway etiquette, raise the visibility of cyclists, and help bicyclists and drivers behave predictably when sharing road space.



Where available width is insufficient for bicycle lanes, mark the existing travel lane as shared space using federally accepted shared lane markings on the asphalt.

Streets and segments on the Crown Point bicycle network that fit the shared lane profile include:

- Court St. [Greenwood to Burrell]
- Indiana Ave. [101st Ave. to S.R. 231]
- North Ave. [Main St. to Iowa]
- Main St. [S.R. 231 to Greenwood]
- Merrillville Rd. [Center Ross Rd. to Main St.]
- Burrell Dr. [Court St. to Indiana/S.R. 55]

Shared lane markings help drivers to expect and accept cyclists in the street, and by helping to define a shared space guide the drivers in passing with caution and at an acceptable distance. For bicyclists, shared lane markings encourage legal behavior and raise cyclists' comfort level, helping them behave more predictably.

Courthouse Square

Map key:

Scope of work: Mark all travel lanes as shared space/yield to bikes

Target for completion: Second year

Mark all lanes on streets bordering the Lake County courthouse shared space with appropriate "Yield to Cyclists" signage.

The Courthouse Square street segments include:

- Clark St.
- Court St.
- S.R. 231
- Main St.

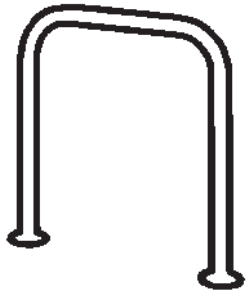
The charm of the courthouse and local restaurants, bars and merchants of Courthouse Square make it a key destination for residents and visitors, and an important commercial and civic area for the city.

While current lane configurations, allowed turning movements and closely bunched traffic intimidate many riders, the slow speeds and available width allow for shared lane markings and signage to meaningfully improve access for cyclists to this important destination.

Bicycle Parking

Scope of work: Purchase and install 100 bicycle racks

Target for completion: First year



Install throughout the city "inverted u" parking racks at public buildings, parks, and on city-owned property near businesses and multi-unit residences.

Racks should be located within clear view of the destination's entrance way, and preferably as close as the closest motor vehicle parking space, no more than 50 feet away.

Initial bike parking installation should focus on existing public buildings, schools, pools and parks, and the Courthouse Square. Remaining rack installations should be driven by resident and merchant request, taking care to install only on publicly owned property.

An existing bicycle parking ordinance requires new construction in Crown Point to include bicycle parking per the city's specifications. See Appendix X.

Education & Events

Scope of work: Establish bicycle programming committee

Target completion: Second year

Establish a bicycle programming committee composed of city staff, the local chamber of commerce, city schools and residents to explore events and education options

Bicycling events and education programs will encourage use of the network and facilities, raise the skill level and confidence of bicyclists in the city, and grow support for implementing this plan's mid-term and long-term bicycle network recommendations.

Here's a sample of programs that would work well in Crown Point:

- Safe Routes to Schools - Safe Routes to School programs encourage physical activity by promoting walking and biking to school.
- Bicycle Education for Kids & Adults - Bicycle education classes that teach street skills, basic maintenance and rules of the road are popular around the region.
- Shop by Bike - Shop by Bike programs encourage residents to shop locally by taking their bikes on short errands, adding physical activity to their day, relieving parking issues, and supporting local businesses.

Crown Point Bicycle Map

Target completion: First year

Use the established bicycle network to produce a bicycling map for the City of Crown Point for free distribution to Crown Point residents and businesses.

A city bicycle map encourages bicycle use by promoting the bicycle network and identifying bicycle-friendly routes to important City destinations - swimming pools, ball fields, schools, parks, restaurants and businesses. A city bicycle map also becomes a powerful message for marketing Crown Point's high quality of life to prospective home buyers, developers and businesses.

Mid-Term Priorities [3-5 years]

Bike Lanes on Summit St. and 113th Ave.

Map key:

Scope of work: Accommodate 5' bike lanes in planned street reconstruction; 4.7 miles

Target for completion: 5 years

Coordinate the construction of 5' bicycle lanes with the planned reconstruction and improvements to Summit St. and 113th Ave. to better accommodate cyclists sharing the street space with relatively high speed and/or heavy truck traffic.

Lanes should be installed on these segments:

- Summit St: Main St. to Broadway
- 113th Ave.: S.R. 231 to east city limit

While both segments should be marked as shared lanes in the near term to assist cyclists currently using these intimidating but important routes, the roads' planned reconstruction offers the city an opportunity to roll the relatively small cost of additional pavement and striping of bike lanes into the much larger expense of road reconstruction and improvement.

Coordinating bicycle facility projects with programmed maintenance and improvements maximizes the cost efficiency of bike plan implementation.

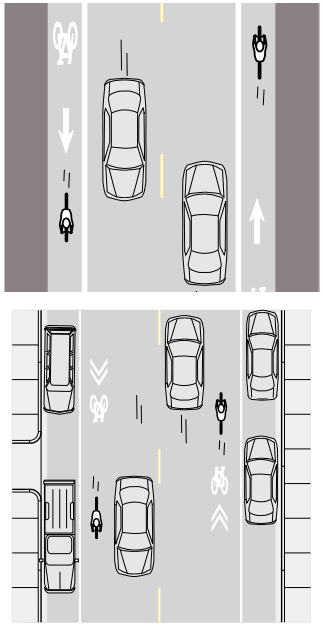
Joliet Rd./S.R. 231

Scope of work: Install bike lanes and shared lanes where appropriate; 3.4 miles

Target for completion: 5 years

Joliet Rd./S.R. 231 is an ideal candidate for bike lane and shared lane markings in the near term: it's in excellent condition, provides sufficient width to accommodate skilled riders even without additional markings, and it provides important connections through town and to the future Veterans Memorial Trail. As a state route, however, striping changes to the roadway require approval by and coordination with the Indiana Department of Transportation [INDOT].

To maximize cost effectiveness, coordinate striping with INDOT's scheduled maintenance program.



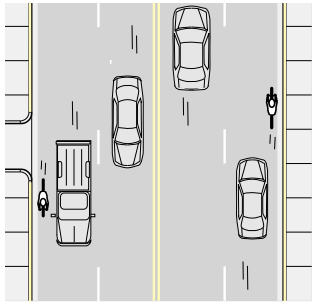
Long-Term Priorities [Years 6-10]

Road Diet: Main St./S.R. 55

Map key:

Scope of work: Reduce travel lanes from 4 [2 northbound/2 southbound] to 2 [1 northbound/1 southbound], add dedicated turn lane and 5' bike lanes from 93rd Ave. to Clark St.; 2.2 miles

Target for completion: 6 years



Multi-lane arterials with Average Daily Traffic of 18,000 vehicles or less offer opportunities to realign the roadway to two vehicle travel lanes, a dedicated turn lane, and two standard bicycle lanes. INDOT's latest traffic counts [2003] show that Main St./S.R. 55 served 9800-14,500 motor vehicles per day along this length. In addition to making space for bicyclists, road diets – when applied to 4-lane streets with a lot of turning movements like Main St./S.R. 55. – often improve traffic flow and safety by moving turning vehicles out of the travel lanes.

Since only restriping is typically necessary with no additional street width, Road Diets are readily implemented in the mid-term program. However, Main St. between 93rd Ave. and Clark St. is a state route, and dramatic changes to road alignment

Reconstruct with Cyclist Accommodation

Map key:

Scope of work: Accommodate additional width and on-street bicycle facilities in planned street reconstruction; 6.8 miles

Target for completion: 10 years

While all routes listed before will be signed in the near term, and some even marked as shared lanes, all should be improved with additional width to better accommodate a wider range of cyclists' abilities. Due to the expense of adding width as a stand alone project and/or state jurisdiction, bicycle facility improvements should be incorporated into overall reconstruction and improvement projects.

- Cedar Lake [121st. to 133rd Ave.]
- Marshall St. [Burrell Ave. to 133rd Ave.]
- Indiana/S.R. 55 [S.R. 231 to Burrell]
- 129th Ave. [Indiana to Delaware]
- 129th Ave. [I-65 to Iowa]

Appendices

Appendix A. Bicycle Facilities Guidance and Resources

Bicycle Lane Design Guide; City of Chicago and the Chicagoland Bicycle Federation, 2002. http://www.bicyclinginfo.org/de/bikelaneguide.cfm

Guide for the Development of Bicycle Facilities, 3rd Edition; American Association of State Highway and Transportation Officials, 1999. http://www.transportation.org

Bike Parking for Your Business; Chicagoland Bicycle Federation, 2003. http://www.catsmpo.com/bikeped/bike_parking_guide_web.pdf

Pedestrian and Bicycle Information Center, U.S. Department of Transportation. http://www.bicyclinginfo.org/

Chicagoland Bicycle Federation - 9 W Hubbard, Ste. 402, Chicago, IL 60610; 312/427-3325; http://biketraffic.org

Appendix B. Funding Sources

Congestion Mitigation and Air Quality Program [CMAQ] - An annual program administered by the Northwestern Indiana Regional Planning Commission [NIRPC] that funds transportation facilities and programs that show an air quality improvement through the reduction of motor vehicle use. Requires 20% local matching funds.
Program information: http://nirpc.org

Surface Transportation Program [STP] - STP assists municipalities with local surface transportation improvements. Administered by [NIRPC]. Requires 30% local matching funds.
Program information: http://nirpc.org

Transportation Enhancements Program [TE]- Administered by the Northwestern Indiana Regional Planning Council. TE funds bicycle and pedestrian facilities, bicycle education programs, and transportation-related beautification and restoration projects. Requires 20% local matching funds.
Program information: http://www.nirpc.org

Recreational Trails Program [RTP] - Federal funding administered by the Indiana Department of Natural Resources [IDNR] for the construction and improvement of multi-use trails and facilities. Requires 20% local matching funds.
Program information: http://www.in.gov/dnr/outdoor/grants/rtp.html

Appendix C: Recommended Bicycle Network By Priority and Segment

Street	Segment	Length	Width	Facility	Priority
Main St./SR 55	93rd Ave to Clark St.	2.2		Road Diet	Long
Cedar Lake	121st to 133rd Ave.	2	10-10	Lanes	Long
Marshall St.	Burrell Ave to 133rd Ave.	1	10.5-10.5	Lanes	Long
Indiana	IN-231 to Burrell	1.6	2s-13-11-3s	Lanes	Long
129th Ave.	Indiana to Delaware	1.2		Lanes	Long
129th Ave.	I-65 to Iowa	1		Lanes	Long
		9		**Lanes Total**	
Summit	Main St to Indiana	1.5	2s-11-11-2s	Lanes-m	Mid
Summit	Indiana to Broadway	1	10-10t-10	Lanes-m	Mid
113th Ave.	IN-231 to Iowa	2.2		Lanes-m	Mid
Joliet Rd.	Lane St to Horst St.	0.7	4s-13-13-4s	Lanes-m	Mid
Joliet Rd.	Horst St to West St.	0.5	16-16	Lanes-m	Mid
Joliet Rd.	Main St. to Indiana	0.5	13.5-13.5	Lanes-m	Mid
Joliet Rd.	Indiana to Delaware	1.7	3.5s-11.5-11.	Lanes-m	Mid
		8.1		**Lanes-m Total**	
113th Ave	Iowa to Oregon Lane	0.3		Signed	Near
Clark	121st Ave to 133rd Ave.	1.5		Signed	Near
Reeder Rd.	133 Ave to 141st Ave	1.1	10-10	Signed	Near
Lake/Chase St.	Greenwood to 121st	1	16-10	Signed	Near
West	Summit St. to Joliet St.	0.7		Signed	Near
Madison	93 Ave to Summit	1		Signed	Near
Delaware	113th to 130th Ave.	2.2	15-10	Signed	Near
Delaware Pkwy	109th to 113th Ave	0.5	10-10	Signed	Near
Iowa	113th to 129th Ave.	2.5		Signed	Near
93rd Ave	Broadway to Mississippi St.	1		Signed	Near
Center Ross/101st Ave	Indiana to Colorado St.	3		Signed	Near
Summit	Lane St to Main St	1.2		Signed	Near
North Ave./109th Ave	Horst St to Main St.	0.6		Signed	Near
North Ave/109th Ave	Iowa to Colorado	0.5		Signed	Near
113th Ave.	Burr St. to Sauerman Woods Pa	2.7		Signed	Near
Greenwood Ave	Lake to IN-231	1.7		Signed	Near
121st Ave.	Clark to Court St.	1.2		Signed	Near
		22.7		**Signed Total**	
Court St.	IN-231 to South St.	0.3	18-11	Lanes	Near
Court St.	South St. to Greenwood	0.5	15-14.5	Lanes	Near
Court St.	Greenwood to 121st	1	10.5-10.5	Lanes	Near
Court St.	121st to Burrell Ave.	0.5	10.5-11t-10.5	Lanes	Near
Indiana	101st Ave to North	0.3	10-10t-10	Lanes	Near
Indiana	North to 231	0.4	12-12	Lanes	Near
North Ave./109th Ave	Main St. to Iowa	3		Lanes	Near
Main St.	Clark St. to IN-231	0.08	19-19	Lanes	Near
Main St.	IN-231 to 121st	0.8	8p-11.5-11.5-	Lanes	Near
Main St.	121st. Ave. to Burrell	1	17.5-17.5	Lanes	Near
93rd Ave.	Chase St. to Broadway	2		Lanes	Near
Merrillville Rd.	93rd Ave. to 99th Pl	0.8	5s-14-14-5s	Lanes	Near
Merrillville Rd.	99th Pl to 101st Ave.	0.2	10t-10-10t-10	Lanes	Near
Merrilville Rd.	Center Ross Rd. to Main St.	0.9	12-12	Lanes	Near
Clark St.	Court St. to Indiana Ave	0.5	17.5-17.5	Lanes	Near
Burrell	Court St. to Main St.	0.3	10-10	Lanes	Near
Burrell	east boundary of school to India	0.1	10-10	Lanes	Near
Burrell	Main St. to east boundary schoo	0.4	14-14	Lanes	Near
		13.08		**Lanes Total**	
		52.88		**Grand Total**	

Appendix D: Proposed On-Street Bicycle Facilities, Near-Term

Street	Segment	Length	Width	Facility	Priority
Court St.	IN-231 to South St.	0.3	18-11	Lanes	Near
Court St.	South St. to Greenwood	0.5	15-14.5	Lanes	Near
Court St.	Greenwood to 121st	1	10.5-10.5	Lanes	Near
Court St.	121st to Burrell Ave.	0.5	10.5-11t-10.5	Lanes	Near
Indiana	101st Ave to North	0.3	10-10t-10	Lanes	Near
Indiana	North to 231	0.4	12-12	Lanes	Near
North Ave./109th Ave	Main St. to Iowa	3		Lanes	Near
Main St.	Clark St. to IN-231	0.08	19-19	Lanes	Near
Main St.	IN-231 to 121st	0.8	8p-11.5-11.5-	Lanes	Near
Main St.	121st. Ave. to Burrell	1	17.5-17.5	Lanes	Near
93rd Ave.	Chase St. to Broadway	2		Lanes	Near
Merrillville Rd.	93rd Ave. to 99th Pl	0.8	5s-14-14-5s	Lanes	Near
Merrillville Rd.	99th Pl to 101st Ave.	0.2	10t-10-10t-10	Lanes	Near
Merrilville Rd.	Center Ross Rd. to Main St.	0.9	12-12	Lanes	Near
Clark St.	Court St. to Indiana Ave	0.5	17.5-17.5	Lanes	Near
Burrell	Court St. to Main St.	0.3	10-10	Lanes	Near
Burrell	east boundary of school to India	0.1	10-10	Lanes	Near
Burrell	Main St. to east boundary schoo	0.4	14-14	Lanes	Near

Total Near-Term Bike Lanes/Shared Lanes - 13 miles

Total Near-Term Signed Only - 39 miles

11/7/2007 - City of Crown Point

Appendix E: Proposed Traffic Signal Detector Pavement Markings

Intersection	No. Stop Lanes	No. Markers	Comments
93rd Ave. @ Broadway	3 E/3 W	4	[right lane & turn lane]
93rd and Merrilville Rd.	8	8	[through & turn lanes]
93rd and Main St.	14	7	[through lanes on 93rd, all turn lanes on 93, left turn lanes on Main]
101st Ave. @ Broadway	1 E/1 W	2	
Summit St. @ Broadway	2 E	2	
North Ave. @ Broadway	2 E/3 W	5	
South St. @ Broadway	1 E/1 W	2	
Broadway and IN-231	10	6	[all Broadway/Stillwater lanes, left turn lanes on IN-231]
Delaware St. @ IN-231	1 N/1 S	2	
Indiana and IN-231	8	6	[all Indiana lanes, left turn lanes on IN-231
Greenwood @ Indiana	1 E/1 W	2	
Burrell and Indiana	4	2	[Burrell and Indiana left turn lane]
East St. and IN-231	6	4	[East St. and IN-231 left turn lanes]
IN-231 @ Court St.	1	1	
West St. @ IN-231	2	2	
Clark St. @ Main St.	1	1	
Main St. and North St.	7	5	[All North St. lanes, Main St. turn lanes]
Main St. and Goldsboro St.	8	6	[All Goldsboro lanes, Main St. turn lanes
Main St. and Summit St.	10	8	[All Summit lanes, Main St. turn lanes]
Main St. and Birch St.	9	5	[All Birch lanes, Main St. turn lanes]
Main St. and 97th Ave.	7	3	[All 97th Pl lanes, Main St. turn lane]
Lane @ IN-231	1	1	
	TOTAL	84	

Appendix F: Proposed Bicycle Parking Ordinance

Multi-family

1 p.s. / 3 units (covered preferably – only if garages/unit are not present)

Commercial/Retail/Office Space

5% motor vehicle req. (min 4 p.s./ max 40 p.s.)

Recreational (Community Parks or Recreational Facilities)

Minimum of 4 spaces - base number of spaces on approximate use of facility (If facility qualifies for motor vehicle req. – 30% of motor vehicle requirement)

Educational (Work in progress)

Hotels/Motels

5% of motor vehicle req. (depending on vicinity to bike path system)

Exemptions - Single and two-family dwellings; warehousing and distribution; mortuaries; auto service; day care centers; car washes; drive up establishments and airports

Location and Design Elements

- Inverted U structure
- Should accommodate U-locks/chains and shall support bicycle at two locations
- Thermoplastic powder coating on racks and must be anchored securely to ground per manufacturers specifications
- Bicycle parking should be separated from vehicle parking (grade differences, landscaping, poles, etc.)
- Spaces shall be 2ft x 6 ft per bicycle with a 5 ft wide access aisle from behind. Sidewalk adjacent may serve as access site.
- Spaces should be within 50 ft of entrance and clearly safe and convenient (lit if necessary)
- Parking areas may be shared by two venues of within 50 ft of one another
- Parking areas should be easily accessible from trails, sidewalks and other alternative modes of transportation

Appendix G: Estimated Costs - Near-Term Priorities

Estimated costs - 11/07/2007

Near-Term Priorities: Sign the Bike Network

Signed Routes

1. Construction

	QTY	UNIT	UNIT PRICE	TOTAL
Bicycle Network Signing [Signed-Only Routes]	39.8	Mile	$1,600.00	$63,680

2. Engineering

	TOTAL
Design Engineering [7% of Construction costs]	$4,458
Construction Engineering [5% of Construction costs]	$3,184
TOTAL	**$71,322**

Appendix G continued: Estimated Costs - Near-Term Priorities

Estimated costs - 11/07/2007

Near-Term Priorities: Shared Lanes/Bike Lanes

Striped Lanes/Shared Markings

1. Construction

	QTY	UNIT	UNIT PRICE	TOTAL
Striping - Thermoplastic Pavement Marking – 6”	138,125	Linear Feet	$1.20	$165,750
Striping - Thermoplastic Pavement Marking – 4”	138,125	Linear Feet	$0.69	$95,306
Pavement Symbols – 6’ Pre-Cut Plastic Bicycle/Arrow	460	Bike/Arrow set	$345	$158,844
Signing	13.08	Mile	$1,600	$20,928

2. Engineering

	TOTAL
Design Engineering [7% of Construction costs]	$30,858
Construction Engineering [5% of Construction costs]	$22,041
TOTAL	**$493,727**

Appendix G continued: Estimated Costs - Near-Term Priorities

Estimated costs - 11/07/2007

Near-Term Priorities: Signal Markings

Traffic Signal Lane Positioning Markers

1. Construction

	QTY	UNIT	UNIT PRICE	TOTAL
Plastic pre-cut lane position markings	84	Per pre-cut symbol	$200	$16,800

2. Engineering

	TOTAL
Design Engineering [7% of Construction costs]	$1,176
Construction Engineering [5% of Construction costs]	$840
TOTAL	**$18,816**

Appendix G continued: Estimated Costs - Near-Term Priorities

Estimated Costs - 11/07/2007

Near-Term Priorities: Bike Parking

Bicycle Racks

1. Construction

	QTY	UNIT	UNIT PRICE	TOTAL
Inverted U, 2-bike capacity	100	Per rack	$200	$20,000

2. Engineering

	TOTAL
Design Engineering [7% of Construction costs]	$1,400
Construction Engineering [5% of Construction costs]	$1,000
TOTAL	**$22,400**

Appendix G continued: Estimated Costs - Near-Term Priorities

Estimated Costs - 11/07/2007

Crown Point Bicycle Map

Design and production of map/marketing piece to guide route choice and promote cycling and the high quality of life available in Crown Point

$9,000

TOTAL NEAR-TERM **$606,264**